

CLAIMS

What is claimed is:

1. A charge transport or anti-quenching materials selected by
5 the method comprising:
 - (a) determining a first luminescence intensity I_0 of a luminescent material in the absence of the charge transport and/or anti-quenching material;
 - (b) determining a second luminescence intensity I_q of the
10 luminescent material in the presence of the charge transport and/or anti-quenching material; and
 - (c) comparing the first luminescence intensity I_0 with the second luminescence intensity I_q to determine a degree of luminescence quenching of the charge transport and/or anti-quenching material with
15 respect to the luminescent material; and
 - (d) determining whether the degree of quenching is appropriate for the desired electronic device of said charge transport and/or anti-quenching material.
2. The material of Claim 1, wherein the first luminescence
20 intensity I_0 is compared with the second luminescence intensity I_q by visual observation.
3. The material of Claim 1 selected using a visual observation of photoluminescence in step (c) that the second luminescence intensity I_q is comparable to the first luminescence intensity I_0 .
- 25 4. The material of Claim 1, selected by the method wherein comparing the first luminescence intensity I_0 with the second luminescence intensity I_q in step (c) is done using a photodetector.
5. The material of Claim 1, selected wherein determining the first luminescence intensity I_0 comprises preparing a solution having a
30 luminescent material concentration of approximately 10^{-6} M to 10^{-2} M.
6. The method of Claim 1, wherein determining the second luminescence intensity comprises adding a fixed concentration [Q] of up to about 2.0 M of the charge transport and/or anti-quenching material to a solution of the luminescent material.
- 35 7. The material of Claim 1 selected by the method further comprising determining the second luminescence intensity I_q at a plurality of different concentrations of the charge transport and/or anti-quenching

material to determine a sensitivity of the second luminescence intensity I_q to a concentration of the charge transport and/or anti-quenching material.

8. The method of Claim 7 further comprising:

5 preparing a plot of $I_q/I_0 - 1$ against a concentration $[Q]$ of a charge transport and/or anti-quenching material; and

determining the Stern-Volmer luminescence quenching constant based on a slope of the plot and an equation $(I_q/I_0) - 1 = k_q \tau_0 [Q]$.

9. The method of Claim 1, selected by the method further comprising selecting the charge transport and/or anti-quenching material
10 having a low degree of luminescence quenching.

10. The material of Claim 8, selected by the method further comprising selecting the charge transport and/or anti-quenching material having a low Stern-Volmer luminescence quenching constant.

11. The material of Claim 8, wherein the low Stern-Volmer
15 luminescence quenching constant has a value less than 500.

12. The method of Claim 8, wherein the low Stern-Volmer luminescence quenching constant has a value less than 100.

13. The material of Claim 1, selected by the method wherein the first luminescence intensity I_0 and the second luminescence intensity I_q are
20 determined under substantially anaerobic conditions.

14. The material of Claim 1, selected by the method wherein the luminescent material is a fluorescent compound or an organometallic compound.

15. The material of Claim 14, selected by the method wherein
25 the organometallic compound has a metal selected from metals selected from those that are in Group 3 through 15 of the Periodic Table and mixtures thereof and the fluorescent compound is AlQ_3 .

16. The material of Claim 1, wherein the charge transport and/or anti-quenching material is a hole transport material or an electron
30 transport material.

17. An organic electronic device wherein at least one charge transport or anti-quenching materials is selected based on a degree of luminescence quenching as determined by the method of Claim 1.

18. An electronic device of Claim 17, wherein at least one of the
35 materials selected has a Stern-Volmer luminescence quenching constant less than 500.

19. A kit comprising:

- (a) a means for holding one or more test compartments containing therein 10^{-2} to 10^{-6} Molar of light-emitting material;
- (b) a charge transport/anti-quenching dispensing means; and
- (c) a light source.

5 20. The kit according to Claim 19, wherein the kit further contains a CCD camera.

 21. A kit according to Claim 19, wherein the light emitter is an organometallic complex.

10 22. A kit according to Claim 19, wherein the charge transport material is selected from the group consisting of MPMP, CBP, TPD, NBP, TDATA, and mixtures thereof.